

ABSTRACT OF THE DISCLOSURE

A switched reluctance machine is energized by phase circuits with four active switches, for example MOSFETs, arranged in a bridge configuration. The switches are capable of conducting current in both a first direction and a second direction and are capable of operating as a diode. The direction of current flow through the phase winding is reversed when changing from motoring to generating and from generating to motoring. The ratings of the switches are set in accordance with the energy supply and energy return currents.